

AIHA and ASTM Updates

**Mike Brisson and
Linda Youmans-McDonald
April 7, 2011**

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Cooperation with AIHA - Background

- **Based on 10 CFR 850 requirement for labs to be AIHA accredited or to demonstrate equivalent QA**
- **Initial contacts regarded concerns with dissolution of BeO and need for BeO-based proficiency testing**
 - **BeO dissolution guidance generated by BHSC is available on AIHA web site**
- **Field analysis of beryllium also became an issue**
 - **AIHA accreditation of field portable/mobile lab theoretically, but not practically, possible**

Change in AIHA Governance

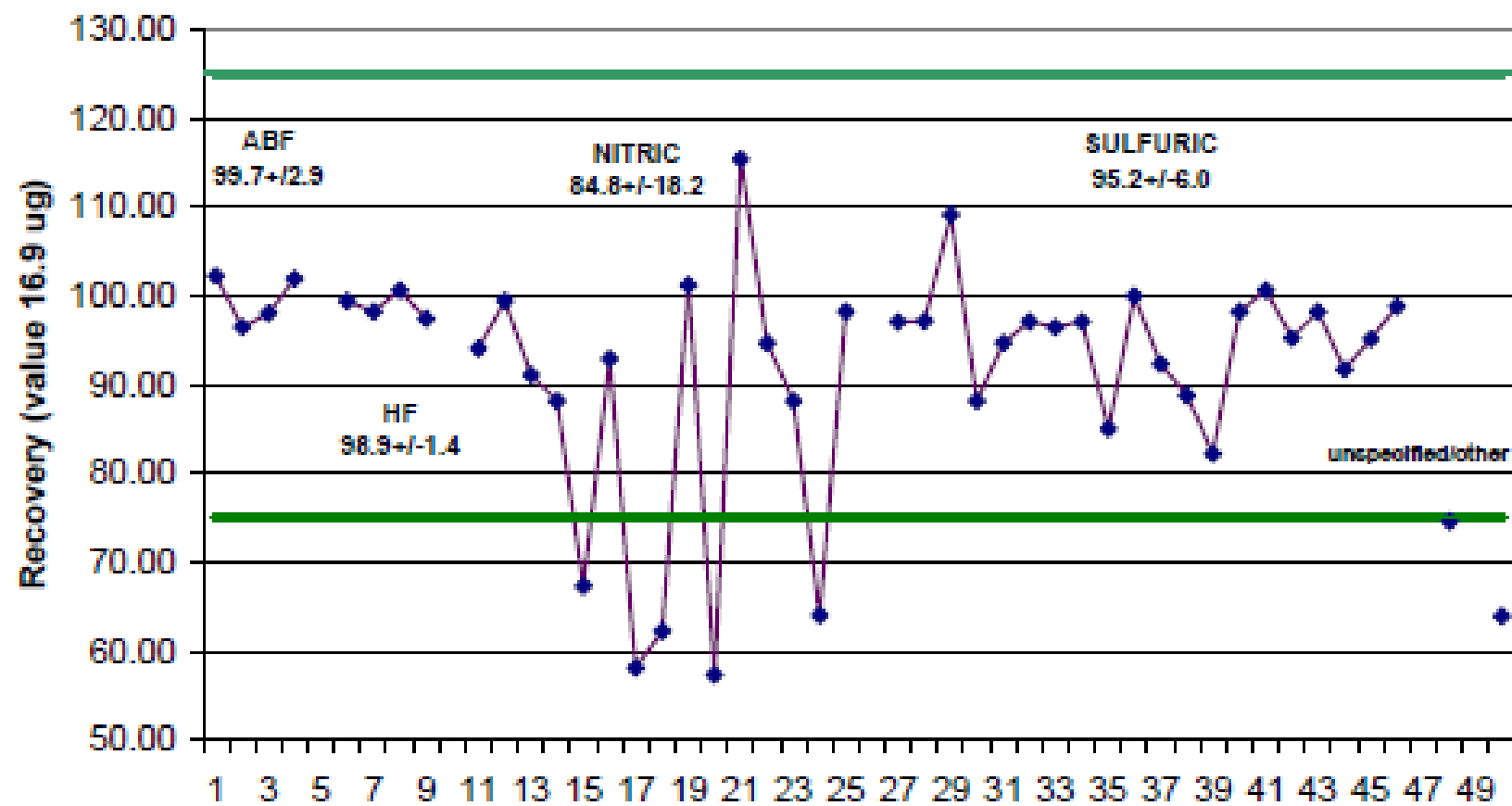
- **In 2009, three separate LLC's established:**
 - **Laboratory Accreditation Programs LLC**
 - **Proficiency Analytical Testing Programs LLC**
 - **Registry Programs LLC**
- **BHSC members are on boards of two of these LLC's**
 - **Linda Youmans-Mcdonald on PAT LLC**
 - **Mike Brisson and Kenn White on Registry Programs LLC**

Proficiency Analytical Testing Programs LLC

- Discussed beryllium PAT in February 2011
- Reviewed BeO pilot from last year
 - As expected, those using ammonium bifluoride, hydrofluoric, and sulfuric acid performed better overall and had a lower standard deviation.
 - Results were more variable for those not using ammonium bifluoride, hydrofluoric, and sulfuric acid, although many were within acceptable performance criteria
 - Per current BePAT standards, the only labs that would have failed did not use sulfuric or some form of fluoride (failure defined as outside +/- 25% of known value).

Primary Dissolution Material	Average	Standard dev
Nitric	84.8	18.2
ABF	99.7	2.9
HF	98.9	1.4
H ₂ SO ₄	95.2	6.0

BePAT Round 24 Pilot BeO results



Proficiency Analytical Testing Programs LLC

BePAT Path Forward:*

- **Last year's pilot was a higher concentration than we usually see in "real" samples (the concentration of round 24 was 16.9 micrograms).**
- **Another pilot test for BePAT is planned for Round 25 (this summer). This pilot will include a BeO filter at a level closer to DOE action level**
- **It is expected that labs participating in BePAT program will be required to analyze Beryllium oxide by the end of the year. Factors such as laboratory readiness will play a role in the final date decided.**
- **A suggested path forward after this pilot would be a mixture of BeO and Be acetate samples, similar to the bulk asbestos program**

*** Subject to final approval by PAT LLC Board after the next pilot**

Registry Programs LLC

- **Initial program: Asbestos Analyst Registry (AAR)**
- **Recently launched XRF registry**
- **Now drafting registry for beryllium field analyzers**

ASTM Update – Recent Activity

NEW beryllium wipe specification, ASTM D7707

- Originated from work performed separately at SRS (Linda Youmans-McDonald) and Berylliant, Inc. (Anoop Agrawal et al.)
 - As discussed in fall 2010 BHSC meeting
- Principal author – Kenn White (BHSC/ASTM task group)
- Minimal background beryllium
- Ruggedness testing
- Uniform moisture content
- Individually packaged
- Thickness
- Collection efficiency/ recoverability tests
- Unlike E1792, two sizes of wipes:
 - Side or diameter between 4 – 8 cm for wiping ~100 cm² as typically done for beryllium
 - Side or diameter between 10 – 20 cm (same as E1792) for wiping ~1000 cm² of surface
 - Both sizes are commercially available

ASTM Update – Upcoming Activity

- Five-year review of ASTM D7296
 - Dry wiping for beryllium
 - Some minor revisions (updating references, etc.) are likely – no major changes